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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/803,901	03/19/2004	Hinnerk Kaiser	P24834	6700

7055 7590 05/21/2007
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EXAMINER	
MAKI, STEVEN D	
ART UNIT	**PAPER NUMBER**
1733	

NOTIFICATION DATE	DELIVERY MODE
05/21/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/803,901	KAISER ET AL.	
	Examiner	Art Unit	
	Steven D. Maki	1733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 February 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4-6,8,9 and 11-43* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 2, 4-6, 8, 9 and 11-43* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

1) The substitute specification filed 2-28-07 has been approved for entry by the examiner in order to expedite prosecution. However, paragraph 32.1 of the substitute specification, which corresponds to the paragraph 32.1 added by the amendment filed 9-20-06 contains new matter as explained below.

2) The underlining in previously presented claim 29 in the amendment filed 2-28-07 should be omitted.

3) The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: Incorporation into the specification of the description of (1) "two circumferentially adjacent blocks of the two shoulder rows having different circumferential lengths and two circumferentially adjacent blocks of the pair of center block rows having different circumferential lengths" (newly added to claims 1, 23 and 25), (2) the description of the subject matter in claims 4-6 and (3) the description of the subject matter subject matter of new claims 35-43. The new language in claims 1, 23, 25 and 35-43 has no literal antecedent basis in the specification. The description in claims 4-6 was omitted from the substitute specification filed 2-28-07.

4) The amendment filed 2-28-07 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: The subject matter of "A ratio of the width X to the width Y increases as a diameter of a rim DR to which the vehicle tire can be connected decreases" (paragraph 32.1 of the substitute specification

filed 2-28-073, which corresponds to the paragraph 32.1 added by the amendment filed 9-20-06). The original disclosure teaches away from the above noted subject matter and thereby fails to reasonably convey the above noted subject matter because the above noted subject matter represents the problem (transferring a profile according to scale) instead of applicant's solution (the mathematical expressions containing the term DR).

Applicant is required to cancel the new matter in the reply to this Office Action.

5) The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6) Claims 1-22, 24, 29, 31 and 35-37 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

As to claims 1, 24 and 29, the subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention (i.e. the new matter) is the subject matter of "A ratio of the width X to the width Y increases as a diameter of a rim DR to which the vehicle tire can be connected decreases". The original disclosure teaches away from the above noted subject matter and thereby fails to reasonably convey the above noted subject matter because the above noted subject matter represents the problem (transferring a profile according to

scale) instead of applicant's solution (the mathematical expressions containing the term DR).

In claims 19-21 the subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention (i.e. the new matter) is the subject matter of the first and second angles of the fine indents being with respect to "a radial plane of the tire passing through the center circumferential groove". The original disclosure describes the angles as being with respect to the circumferential direction instead of the radial direction. See paragraphs 16 and 27 of the original disclosure. The description of the radial plane passing through the center circumferential groove fails to correct the above noted new matter because a radial plane may extend in the axial direction so as to pass through a center circumferential groove.

7) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8) **Claims 1-2, 4-6, 8-9, 11-12, 14-22 and 35-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan 907 (JP 2003-80907) in view of Campos et al (US 4598748) and optionally further in view of at least one of Diensthuber (US 5,660,651), German 156 (DE 19705156) and Landers et al (US 5,824,169).**

Japan 907 discloses a pneumatic radial tire for use on snow having three circumferential grooves 2, 1, 2, diagonal grooves 3, two shoulder block rows, two center block rows, and sipes ("fine indents"). See figure 1. Japan 907's pneumatic radial tire has a size such as 195/65R15 and therefore inherently has a rubber tread. In claim 1, "each diagonal groove being a swept groove and/or a continuously curved groove that extends from the center circumferential groove to a respective tread rubber edge, each diagonal groove running essentially continuously up to and beyond the respective tread rubber, and each diagonal groove passing through one of the center block rows and one of the shoulder block rows, whereby the diagonal grooves define blocks in the circumferential direction" reads on the curved diagonal grooves 3 of Japan 907. As to rubber tread (claim 1), Japan 907's pneumatic radial tire has a size such as 195/65R15. One of ordinary skill in the art would readily understand such a tire as having a rubber tread.

In claim 1, it would have been obvious to one of ordinary skill in the art to provide the shoulder blocks and center / inner blocks of Japan 907 with different lengths as claimed since it is well known / conventional in the tire tread art to use different length pitches to reduce noise wherein each pitch comprises a block as evidenced by Campos et al and optionally further evidenced by at least one of Diensthuber, German 156 and Landers et al. The motivation to use different length blocks in Japan 907's figure 1 tread therefore is to reduce noise.

As to claim 1, the claimed "sinusoidal" fine indents read on the sipes in the shoulder blocks in figure 1 of Japan 907. The claimed fine indents being "one of stepped and saw-toothed" read on the sipes 7 in the center blocks 5 in figure 1 of Japan 907. It is emphasized that the shoulder sipes have a different shape than the center sipes 7. In other words, the sinusoidal sipes and stepped / sawtoothed sipes of claim 1 are interpreted as reading on Japan 907's sipes. In any event: As to claims 1, 8, 9, 11 and 12, it would have been obvious to one of ordinary skill in the art to provide Japan 907's tire such that the shoulder sipes have a sinusoidal shape and the center sipes have a stepped or sawtoothed shape as claimed since (1) Japan 907 teaches using shoulder sipes having a different shape than center sipes (see figures), (2) German 156, also directed to a winter tire having a directional tread comprising shoulder blocks and center blocks, suggests providing the fine cuts (sipes / indents) in the shoulder blocks with a wavy configuration (page 2 of machine translation) and (3) Diensthuber suggests using wave or zigzag sipes in shoulder blocks to provide high block rigidity for improving handling and using stepped or sawtoothed sipes in center blocks so that the sipes open readily and provide gripping edges.

As to claim 2, Japan 907's tire is for snow.

As to claims 4-6, Japan 907 teaches a tire having a size such as 195/65R15 (tire for a 15 inch rim).

As to claim 14, note center circumferential groove 1.

As to claims 15 and 16, the claimed spacing of the blocks would have been obvious in view of Japan 907's teaching to provide a tire having a section width such as

195 mm(tire size 195/65R15) with a symmetrical tread in which the center blocks on one side of the circumferential groove are shifted (spaced) with respect to the center blocks in the row on the other side of the center circumferential groove.

As to claims 17 and 18, note orientation of sipes in figure 1 of Japan 907.

Claims 17 and 18 are considered to read on the orientation of Japan 907's sipes. In any event: As to claims 17-21, it would have been obvious to orient Japan 907's sipes (fine indents) as set forth in claims 17-21 since Japan 907 shows the sipes in the blocks as being oriented at about 80 degrees to the circumferential direction. Claims 19-21 are considered to contain new matter. See 112 first paragraph rejections above. In any event: It would have been obvious to one of ordinary skill in the art to incline Japan 907's sipes at 5-15 degrees (e.g. 10 degrees) with respect to the radial plane since it is taken as well known / conventional per se in the tire tread art to incline sipes at an angle of 0-45 degrees with respect to the radial plane to improve traction during breaking / acceleration.

As to claim 22, Japan 907's diagonal grooves 3 are curved and form a directional tread. In claim 22, "each diagonal groove is both a continuously curved groove and a swept-back groove" reads on the curved diagonal grooves 3 of Japan 907

As to claims 35-37, see figure 1 of Japan 907. The shoulder block comprises three sipes wherein the middle sipe is shorter than the other two sipes. The center / inner blocks comprise sipes wherein the sipes in the center / inner block extend to an edge of the block; this edge being defined by one of the inclined lateral grooves 3.

9) **Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Japan 907 in view of Campos et al and optionally further in view of at least one of Diensthuber, German 156 and Landers et al as applied above and further in view of Colombo et al (WO 02/068222).**

As to claim 31, it would have been obvious to one of ordinary skill in the art to provide Japan 907's grooves such that the center circumferential groove is narrower than the left, right circumferential grooves since Colombo et al, which like Japan 907 teaches a directional tire tread for snow having three circumferential grooves and diagonal grooves, suggests providing the *center circumferential groove* with a width of 4 mm to 6 mm, providing the *left, right circumferential grooves* with a width of 4 mm to 8 mm and providing the *transverse grooves* with a width of 2 mm to 5 mm (page 9).

10) **Claims 13, 23, 24, 34 and 38-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan 907 in view of Campos et al and optionally further in view of at least one of Diensthuber, German 156 and Landers et al as applied above and further in view of Europe 577 (EP 846577).**

As to claims 13, 23, 24, 34 and 38-40, it would have been obvious to one of ordinary skill in the art to provide the shoulder sipes (fine indents) with a narrower width than the width of the center sipes (center fine indents) since Europe 577, also directed to a winter tire, suggests providing incisions (sipes / fine indents) in shoulder regions with a smaller width than the incisions (sipes / fine indents) in the central region to reduce softening in the shoulder regions and thereby equalize wear and improve ground adhesion.

11) **Claims 25-30, 32, 33 and 41-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan 907 in view of Campos et al and Europe 577 and optionally further in view of at least one of Diensthuber, German 156 and Landers et al as applied above and further view of Colombo et al (WO 02/068222).**

As to claims 25-30, 32, 33 and 41-43, it would have been obvious to one of ordinary skill in the art to provide Japan 907's grooves such that the center circumferential groove is narrower than the left, right circumferential grooves (claims 25 and 32) / the transverse grooves (diagonal grooves) have a width less than either of the center circumferential groove and the left and right circumferential grooves (claim 26) since Colombo et al, which like Japan 907 teaches a directional tire tread for snow having three circumferential grooves and diagonal grooves, suggests providing the *center circumferential groove* with a width of 4 mm to 6 mm, providing the *left, right circumferential grooves* with a width of 4 mm to 8 mm and providing the *transverse grooves* with a width of 2 mm to 5 mm (page 9).

Remarks

12) Applicant's arguments with respect to claims 1-2, 4-6, 8-9 and 11-43 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments filed 2-28-07 have been fully considered but they are not persuasive.

With respect to the previously withdrawn non-enablement rejection, the subject matter of the formulas containing DR has been removed from the claims. With respect to the error regarding "Y/X", the record now shows that the formulas of the original

disclosure contain at least two errors - the ratio term "Y/X" and the term "(Dr - 100)". One of ordinary skill in the art cannot determine the correct solutions for the errors since more than one solution is possible. One of ordinary skill in the art is not provided with enough guidance from the original disclosure to pick and choose the correct solution from (1) changing Y/X and (DR-100) to X/Y and (DR/100) respectively, (2) changing 1-(DR-100) to 1/(DR/100), (3) making some other change, etc.

With respect to the 132/ 112 first paragraph rejections, applicant argues that figure 2 fully and clearly supports the noted claim language and that claim 25 did not contain the new formula. These argument is not persuasive. First: **the test for new matter** is whether or not the subject matter is described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention **instead of** whether the subject matter reads on figure 2. Second: Applicant's reference to claim 25 is irrelevant as claim 1 requires a formula (i.e. a ratio of the width X to the width Y increases as a diameter of a rim DR to which the vehicle tire can be connected decreases). Third: A fair reading of the specification is that the above noted formula in claim 1 is the problem applicant intended to solve. The solution to the problem was the formulas which applicant has admitted are incorrect. The specification does not reasonably convey to one of the ordinary skill in the art to switch from the non-enabled formulas to the problem of merely increasing the ratio of the width X to the width Y as a diameter of a rim DR to which the vehicle tire can be connected decreases.

Applicant's arguments regarding the 112 first paragraph rejection of claims 19-21 are not persuasive since (1) applicant is confusing an angle with respect to the circumferential direction with a an angle with respect to the radial direction (these are mutually exclusive concepts) and (2) a radial plane can pass through a circumferential groove in the axial direction.

As to pages 16-17 of applicant's response field 2-28-07, it is noted that no 112 first paragraph rejection has been made as the diagonal grooves.

With respect to the new limitation of the different length shoulder and center blocks added to all of the independent claims, note the new ground of rejection using at least Japan 907 and Campos. Also, note the following additional comments: Applicant has provided no convincing argument and/or evidence explaining why the shapes of the claimed fine indents do not read on the shapes of the sipes in figure 1 of Japan. Applicant's arguments regarding Europe 577, Diensthuber, German 156 and Colombo et al are not persuasive since the fact that the secondary references individually do not provide a specific teaching of every aspect of applicant's claimed invention, does not mitigate the obviousness of applying the relied on teachings in the manner proposed above. Furthermore, the repeated identification of the wording the claims fails to constitute an argument explaining why the rejection should be withdrawn.

13) No claim is allowed.

14) Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

15) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven D. Maki whose telephone number is (571) 272-1221. The examiner can normally be reached on Mon. - Fri. 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Steven D. Maki
May 14, 2007

Steven D. Maki 5-14-07
STEVEN D. MAKI
PRIMARY EXAMINER